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REVIEW OF SECTORAL CLUSTERS, SECOND PHASE: LAND, DESERTIFICATION, FORESTS AND BIODIVERSITY

"Combating deforestation" and the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests

Report of the Secretary-General

SUMMARY

Two outcomes of the United Nations Conference on Environment and Development (UNCED) focused on forests: the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests, and Agenda 21, chapter 11, entitled "Combating deforestation". Both aim to achieve the sustainable management of all types of forests, with an equal emphasis on conservation and development. In the three years since UNCED, the international community has initiated actions to raise awareness; has adapted policies; has prepared and implemented plans and strategies; and has improved action programmes that were under way before UNCED.

Forests continue to meet the growing needs of mankind for forest products and services and for livelihoods that are based on them, whether of a commercial or subsistence nature. Some corrective actions have been attempted, but rapidly growing populations, poverty, unsuitable land use, adverse incentives and various other external threats, including pollution, have continued to damage forests; sustaining their multiple productive, social and protective functions remains a major challenge. Particular concerns include the loss of biological diversity; threats to the soil and water base for agriculture; and shortages of forest products, including products that are vital for rural communities, such as fuelwood and forest-based medicines.

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Countries in all categories of development have made progress in adopting improved policies and strategies. The spirit of the Authoritative Statement of Principles is reflected in many new programmes that place environmental concerns on the same plane as production and encourage popular participation. The developed countries have made the most progress and continue to allocate significant resources to environmental programmes, particularly programmes for conserving additional areas of primary forest. They have also, through incentives and codes of practice, reduced waste and increased its recycling, particularly in the area of pulp and paper. In addition, many developed countries have expressed their intention to assist developing countries in achieving the same objective. The developing countries and the economies in transition have attempted to implement similar initiatives, albeit at a slower pace due to their more limited resources.

An area of growing interest has been the development of criteria and indicators for measuring progress towards the achievement of sustainable forest management (SFM). Many initiatives have drawn up proposals that need to be harmonized so that they converge to provide a standard basis for certifying that forest products derive from sustainable sources. Such initiatives have paved the way for future trade to be based on sustainably produced goods, thus precluding the need to resort to the boycotts and bans that have become a feature of trade in forest products in recent years.

Countries have not yet reviewed the Authoritative Statement of Principles; whether they should be replaced by a legally binding instrument and what the pros and cons of such a development might be is a matter of great interest to member States.

The demand for forest goods and services will continue to grow, as will the pressures exerted on forest resources: population growth, agricultural expansion, the demand for forest products and the need for forest-based livelihoods all show an upward trend. All scenarios require taking action to create new forests and to improve the management of existing forests. To that end, matters brought to the attention of the Commission on Sustainable Development call for the involvement of all interest groups so that sector development can gain from their joint commitment and synergy, an essential element of which is mutual confidence-building and reaching a consensus on how to achieve SFM.

Of the items brought to the attention of the Commission, the following three items have a political dimension, have gained a particularly high profile or affect the vital interests of groups of member States or interest groups; it is proposed that they be brought to the attention of the high-level segment of the current session:

(a) The provision by Governments and concerned intergovernmental organizations of forums at the global and regional levels that are open to all interest groups for early consensus-building on forests, with a view to achieving an early convergence of purpose for subsequent concerted action among all groups;

(b) The direction of action to follow up the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests, and the need or otherwise for its further elaboration into a legally binding instrument;

(c) The institution of a dialogue to address urgent trade and environment-related issues concerning products from all types of forests, with a view to accelerating the replacement of the current system of unilateral restrictions with a measured transition to trade based on products from sustainably managed forests, as measured through agreed criteria and indicators.

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INTRODUCTION

1. At its first session, the Commission on Sustainable Development decided to consider the elements of Agenda 21 1/ related to land as a cluster. The present report has been prepared in response to that decision and covers chapter 11 of Agenda 21, entitled "Combating deforestation", as well as the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests. 2/ The report was prepared by the Food and Agriculture Organization of the United Nations (FAO), as task manager for chapter 11 of Agenda 21, in consultation with the United Nations Secretariat, in accordance with arrangements made by the Inter-Agency Committee on Sustainable Development at its fourth session (Geneva, 14-16 June 1994).

2. Forests were the subject of particularly intense debate at the United Nations Conference on Environment and Development (UNCED) and agreements were only reached by reconciling deep-seated divisions among countries. There is a widespread appreciation of the importance of forests for sustainable development, including their function as a natural sink for carbon dioxide and public concern at the threats they face. Although forests are relevant to many chapters of Agenda 21, particularly those associated with land use, the key agreements on forests adopted by UNCED are contained in chapter 11, entitled "Combating deforestation", and in the Authoritative Statement of Principles. The main focus of the Authoritative Statement of Principles was to call for the achievement of sustainable forest management (SFM), with both conservation and development being accorded major importance; the main focus of chapter 11 of Agenda 21 was to indicate the actions that would be required to achieve that goal. (Because forests serve as the storehouse for a major part of the world's biological diversity, they are also of major importance to chapter 15 of Agenda 21, entitled "Conservation of biological diversity", and to the Convention on Biological Diversity, 3/ which was adopted just before UNCED.) The annual cost of implementing programmes under chapter 11 of Agenda 21 was estimated at about US$ 31 billion, of which about US$ 5.7 billion would come from international development cooperation.

3. It is notable that in the field of forestry, UNCED agreements did not define many precise goals. In paragraph 11.2 (a), Agenda 21 calls for strengthening the capacities and capabilities of national institutions by the year 2000 to enable them to acquire the necessary knowledge for the protection and conservation of forests and to enhance the effectiveness of programmes and activities related to the management and development of forests. Within the overall objective of attaining SFM, there is a need to define more precise post-UNCED goals and to provide an adequate basis for monitoring and measuring progress towards such goals.

4. The present report summarizes information on progress made and experiences reported by the Governments of 34 countries, 20 non-governmental organizations, 5 private-sector associations, 14 United Nations agencies and 6 non-United Nations intergovernmental organizations. A number of international bodies, both intergovernmental and non-governmental, contributed by participating in a

21-member electronic mail (E-mail) group on forests. 4/ References to individual countries or organizations are illustrative rather than exhaustive.

5. The present report has been prepared by FAO, as task manager responsible for facilitating harmonized action within the United Nations system in the follow-up to forest agreements under UNCED.

I. OVERVIEW

A. The forest resource

6. According to the 1990 Forest Resources Assessment 5/ carried out by FAO in cooperation with member Governments and international institutions, the world's forests cover about a quarter of the earth's total land area. Forests cover about 3.4 billion hectares (ha), while other woodlands cover 1.6 billion ha. Approximately 1.4 billion ha are temperate, boreal and sub-temperate forests in industrialized countries; these are broadly stable or increasing, although there is still pressure on primary 6/ and natural stands, as well as damage from pollution and fires that reduce forest quality. Some temperate forests are located in developing countries, and face the same deforestation and degradation pressures that face tropical forests; others, however, such as those in Chile, are growing.

7. The nearly 1.8 billion ha of tropical forests were deforested at an average rate of 15.4 million ha annually between 1981 and 1990; that rate of deforestation was significantly faster than it was a decade earlier. Tropical deforestation is caused by conditions similar to those that in earlier centuries caused forests to be cleared in what are today industrialized countries. Sub-temperate and Mediterranean forests face pressures that vary considerably from developing to developed countries. Worldwide, only about 5 per cent of all forests are located in protected areas. In the developing countries, only limited areas of forests are under formal management; in Europe and North America, most forests are managed. The ownership pattern varies considerably: forests in many developing regions tend to be in the public domain or under traditional communal ownership, whereas in some major forestry countries, such as the United States of America, private ownership is also significant and in some cases even dominant.

8. There are approximately 100 million ha of forest plantations worldwide, with an additional 14 million ha of rubber and coconut oil palm plantations, which increasingly also provide wood and other forest goods and benefits. Tropical industrial and community plantations total about 30 million ha worldwide, about 1.8 million ha of which have been successfully established each year in the decade 1981-1990, a rate that may have increased since UNCED.

B. Economic and social importance

9. Forests and woodlands are the source of many goods and services, they contribute to moderating the world's environment and they are a storehouse of a large part of the biological diversity that is essential for future plant and

animal improvement. Forests also help to sustain other key resources, such as water, wildlife and soils. FAO estimates 7/ that in 1991 the global annual economic contribution of forest products, predominantly timber, reached about US$ 400 billion, with the value of exports being US$ 98 billion, or 3 per cent of total world trade in merchandise. For 8 countries, timber products exceed 20 per cent of total exports; for another 12 countries, they exceed 10 per cent. Forest products are also important as imports: in the European Union (12 countries), net annual imports of wood and wood products are worth approximately 15 billion European currency units (ECUs) (US$ 18.5 billion), a value surpassed only by expenditures on the import of oil products.

10. It is estimated that the value of the combined subsistence and wage employment provided by forestry is approximately 60 million work years world wide, with 80 per cent located in developing countries; this is equivalent to about 5 per cent of total world employment in agriculture. Much of this employment is in fuelwood/charcoal-related activities and in many societies it is of particular importance to women. It is also estimated that the livelihoods and cultures of 300 million indigenous people are closely dependent on forests. Forests contribute to food security both directly, by supplying supplementary food and fodder, and indirectly, by providing off-farm employment and income, protecting the land and water base for agriculture and providing farm inputs, such as energy, packaging and construction materials. Forests and the wildlife dependent on them support a major tourism and recreation industry. Forests are also an important source of readily accessible and affordable traditional medicines, on which at least three quarters of the world's population largely depend. It is reported that Brazil has at least 3,000 recorded medicinal plants, India more than 2,000 and Malaysia about 1,000. Forest-derived medicinal materials are an ingredient in a US$ 43 billion pharmaceutical industry world wide.

11. The maintenance of biological diversity (more fully covered under chapter 15 of Agenda 21) is another of the key contributions of forests: at least 50 per cent of the world's terrestrial species are reportedly found in tropical forests. Temperate forests are also an important reservoir of biodiversity, while mangrove forests provide habitats for over 2,000 species of fish, invertebrates and plants.

C. Demands, challenges and issues

12. Forests face rapidly increasing demands and pressures at all levels: growing populations and higher incomes increase unit consumption levels for both forest goods and forest-related services. Low agricultural productivity and poverty lead to the rapid clearing of forests as populations grow; survival is thus a major factor in developing country deforestation. Beyond that, the opportunity to produce products of a higher value from forested lands causes deforestation, sometimes with the added inducement of incentives. Estimates for the early 1980s 8/ indicate that 86 per cent of tropical forest loss resulted from agriculture alone, including about 63 per cent from subsistence farming, 17 per cent from cash crops, and 6 per cent from ranching. Over-harvesting for fuelwood, infrastructure, industrial logging and other purposes all accounted for less than 7 per cent each. In some countries, timber harvesting can

facilitate uncontrolled settlement in forest areas that are opened up by logging roads. Pollution also poses threats to temperate and boreal forests in the industrialized countries and the economies in transition. In some countries, public demand for recreation can exert high pressure on forests: annual visits in the national parks system of the United States of Americas rose from 50 million in 1954 to more than 270 million in 1993. There is also a potential for uncontrolled harvesting in the economies in transition.

13. Causes for concern include the fact that some forests have been "mined", with the most accessible and highly prized trees being harvested with little real concern for residual vegetation. FAO recently published indicative species loss rates for 1981-1990 of between 1 and 4.3 per cent among higher plants due to tropical deforestation. 9/ Since 1950, the rapid degradation, fragmentation and loss of primary tropical forests has reportedly caused the extinction of about 1,500 specifies per year, while 5 to 10 per cent of tropical forest specifies may face extinction within the next 30 years and some 492 genetically distinct populations of tree species may be endangered. 10/

14. Evidently, as illustrated above, many key influences that affect the survival of forests and provide opportunities for their sustainable development, such as population, land management, agriculture and energy, are located outside the forestry sector itself. The sustainability of forests depends as much on controlling pressures beyond the boundaries of the forestry sector as on managing or protecting forests. It is therefore of vital importance that compatibility with SFM be among the criteria used to review actions taken under UNCED agreements and Agenda 21 in the areas of biological diversity, land management, agriculture, desertification, mountain ecosystems, energy, change of consumption patterns and population.

15. At the core of both the ongoing debate and practical efforts in forestry development is the question of how to achieve a balance between the developmental and environmental roles of forests. One important issue is that each interest group has its own perception of which forestry problems deserve the greatest or most urgent attention; as a result, there is often disagreement among the many actors with an interest in the sector, whose divergent views and priorities have sometimes led to serious conflicts. At the national or local levels, there have been cases of intense clashes between industrial forest owners and environmental groups that have caused all interested parties to lose. At the international level, groups calling for greater environmental responsibility in the timber trade have at times resorted to bans and boycotts instead of adopting consensus-building approaches. It is to minimize such conflicts that efforts are under way to develop, adopt and apply an agreed operational definition of SFM, as well as a set of criteria and indicators for measuring progress towards SFM.

16. The imagery of our planet as a common home under threat, so effectively used by the World Commission on Environment and Development (WCED), 11/ has been of fundamental importance in increasing the globalization of forestry agenda. The international debate is increasingly concerned with how to reconcile national development objectives with such global environmental objectives as ameliorating climate change or conserving genetic pools to a degree that is often well beyond the needs of individual nation States. One long-standing

issue is how to provide with incentives or compensate those countries or communities that are pressured to forego the right to utilize their forests for the sake of global environmental security.

17. The undervaluation of forest land and forests in traditional economic analysis, together with long-term profit horizons and the low financial profitability of forestry investments relative to other options, encourage the displacement of forests by more attractive land-use options that yield higher benefits, especially in the shorter term. Low prices worsen the problem and forest fees on public lands sometimes reflect only a fraction of management costs; yet raising such prices might make forest products that are harvested according to the principles of SFM uncompetitive with market substitutes.

18. There are three other important issues that call for attention: (a) the shortage of information on which to base policy, priorities and strategies; (b) the inadequacy of scientific and technological knowledge (forestry does not yet have the equivalent of the agricultural "green revolution", although the productivity of well-managed forests is much greater than unmanaged ones); and (c) the general weakness and relatively low institutional profile of many forestry agencies, and their consequent limited ability to secure political support for forestry sector activities, to be taken seriously as partners by institutions in linked sectors, or to effectively mobilize all interest groups for cooperative action. Other potential issues include the inadequacy or distortion of policy in linked sectors or in macroeconomic terms; the adoption of narrowly sectoral policy and institutional approaches to address problems that are multisectoral; insecure land and tree tenure; inadequate funding; and disincentives to investment. Most of these issues are particularly serious in developing countries.

II. REVIEW OF PROGRESS ACHIEVED, MAIN POLICY ISSUES AND EXPERIENCES

19. Given the long-term horizons of forestry, only three years after UNCED, it is too soon for any dramatic change to have occurred in the sector. Some progress has involved the continuation of earlier practical action. More typically, however, preparatory actions have been undertaken to create an environment conducive to effective future practical action. Such actions include awareness raising, attitude adjustment, the preparation of standards, policy changes, planning and strategy preparation, and institutional reform.

A. Progress made since the United Nations Conference on Environment and Development that is common to countries in all categories, international organizations and major groups

20. UNCED reflected the conviction that the forestry sector should allow environmental considerations to permeate all development and become a central rather than a peripheral issue. UNCED also highlighted the role of non-governmental interests, including forest-dependent communities, in sustainable forest development, as well as the intersectoral nature of many key

forestry concerns. For the forestry sector, awareness of such matters among policy makers and planners and the associated attitude change has been one of the major areas of world wide progress since UNCED, prompting efforts to search for an early achievement of SFM and to develop the necessary criteria and indicators for measuring progress in all types of forests towards this goal.

21. The development of criteria and indicators that will permit certification will also lay the foundation for non-discriminatory trade in sustainably produced timber from all types of forests, and should make it unnecessary to continue resorting to bans and boycotts. An institutional problem has arisen in some countries, however: commitments by national Governments to move away from boycotts and bans are not necessarily binding on lower levels of government, such as states, counties or cities, some of which are still applying blanket measures against selected categories of forest products, such as tropical timbers. Even before UNCED, some 450 city councils in Germany and more than 90 per cent of local councils in the Netherlands had banned the use of tropical timber. In the United States of America, the states of Arizona and New York are reportedly prohibiting the use of tropical timber in public construction projects. Some retail businesses have also autonomously barred certain products on the basis of geographic origin. In a move to support both conservation and sustainable timber production, the African, Caribbean and Pacific States (ACP)/European Community (EC) Joint Assembly in 1993 proposed a timber protocol to the Lomé IV Convention to provide a system of trade and aid measures for ACP countries; a study on the protocol has been completed and is under consideration.

22. As to the follow-up to the Authoritative Statement of Principles, UNCED had called for such follow-up to be kept under assessment for its adequacy with regard to further international cooperation on forest issues. Paragraph 11.12 (e) of Agenda 21 provides for considering the need for and the feasibility of all kinds of internationally agreed arrangements to promote international cooperation. It may be too early to undertake such a review only three years after UNCED, especially considering the deep-seated contrasts in viewpoint that earlier discussions revealed. On the other hand, a number of Governments are willing to revive the idea of a legally binding convention. A 1993 meeting of the ACP/EEC Joint Assembly called for regional and international meetings to discuss a convention on the basis of a model prepared by the Global Legislators Organization for Balanced Environment (GLOBE). In addition, some non-governmental groups have started campaigning for a legally binding forestry protocol under the Convention on Biological Diversity rather than a free-standing convention. Other interest groups argue that such a move would tilt the Authoritative Statement of Principles towards conservation and undermine its equally important commitment to development. In March 1995, the FAO Committee on Forestry and its associated meeting of ministers responsible for forestry will review the pros and cons of retaining the Authoritative Statement of Principles or moving towards legally binding alternatives. However, given the pace of progress in addressing such issues as the criteria and indicators for SFM and environment and trade in forest products, more time will probably be required before a global forestry convention is feasible.

23. One area where more progress is desirable is that of consensus-building among Governments, non-governmental advocacy groups and the commercial private

sector, given the considerable diversity of views that prevails on what constitutes SFM, how best to achieve it and at what pace it should progress. These interest groups share a general desire to maintain a balance between development and conservation, and the non-governmental organizations have been searching for a forum where they feel as equally able to influence the outcome as Governments. One prospective forum is the Consultative Group for the Tropical Forests Action Programme (TFAP) set up by the FAO Council; this would bring together participants from Governments, the private sector, and intergovernmental and non-governmental organizations, with an appropriate balance among regions and categories; however, the Group has not yet had the opportunity to meet. Recent intergovernmental initiatives, in which some non-governmental bodies have also participated, are described in section II E below. The continuing involvement of all interest groups would help to reduce the polarization that currently prevails in the international debate on forests by addressing in a neutral context such issues as lack of definition, clear targets and a shared perception of sustainability in forestry.

B. Country experiences

1. Developed countries

Common areas of progress and common problems

24. The most visible achievements common to most of the developed countries have been the revision of national forestry policies, strategies, plans and guidelines to increase the emphasis on environmental and social considerations while maintaining support for the productive roles of forests, especially for the processing and utilization of forest products. The European Community is sensitizing its member States on the need to adopt a common policy and a major European role in addressing global forest issues, including support for the sustainable management of tropical forests. The European Union (EU) has prepared a strategy for the management, conservation and sustainable development of EU forests. Special attention has also been given to increasing efficiency in the production, conservation and use of energy in many sectors, including transport, so as to reduce damage-inducing pollution. Increased consultation with and participation of non-governmental interests and local authorities is also being promoted, although according to many non-governmental organizations, such efforts have been inadequate.

25. In many cases, incentives have been increased and policy instruments have been better targeted on promoting multiple-use forest plantations, in particular for the benefit of plantations established on land that is released from agriculture for timber production, but also to assist in carbon sequestration, improve wildlife habitats, and increase the amount of forest available for recreation. Many industrialized countries plan to restrict the use of timber that originates from unsustainably managed sources (whether tropical or temperate/boreal) and to reduce such harvesting practices as clear-felling.

26. Many countries are working together to develop criteria and indicators for measuring progress towards SFM. However, further progress has yet to be made on establishing clearly defined and generally accepted definitions of SFM; whether

performance should be assessed at the national, area or forest-management unit level, how to set threshold values for indicators and on what basis criteria should be weighted to suit circumstances; how to cope with the unequal capacity of countries to meet requirements; and whether to extend indicators beyond technical measures to include the economic, institutional or political dimensions of sustainability. Consumption patterns have not been generally addressed except in the area of pulp and paper, in which legal measures, fiscal incentives and voluntary industry codes of practice have been deployed to reduce unnecessary packaging, further encourage non-toxic processing technologies, improve energy efficiency and recycle increasing proportions of used paper and board.

27. Other areas in which some progress has been made include the consideration of biological diversity; the reservation of more primary forests; the use of multi-purpose native species; less regimented planting and management regimes for landscape and other environmental purposes; the clear inclusion of forestry concerns into national sustainable development strategies; and broadening end-use objectives beyond timber production to ecosystem management to sustain multiple benefits. In addition, there have generally been declarations of intent to boost the forestry share of external aid budgets.

28. In some areas, the developed countries in general have made less progress or have faced problems: (a) a reduced demand for small-wood due to fibre recycling and to unremunerative prices has led to smaller harvests thus leaving forests to remain crowded, with increased danger of disease, fire and over-maturity; (b) in many countries, the financial returns on forestry are low or even negative, necessitating some form of public subsidy, which is usually justified as a stimulus and reward for the supply of non-wood goods and services. For example, in Germany and the United States of America (on public lands), State intervention is reported to have facilitated below-cost sales of public forest timber, thus possibly discouraging private investment. In some parts of Canada, forest industries reportedly purchase standing trees at a third of administration costs and also receive capital subsidies. In Sweden, some non-governmental organizations claim that subsidies for land drainage to increase timber production have led to the loss of large areas of wetlands.

New or adapted policies, plans and strategies

29. Sweden is an example of a highly forested, timber-exporting developed country. It approved a new forest policy in May 1993, as well as a forest act to reflect it that gives equal priority to the forest environment and to production. The forest owner is responsible for environmental measures in forests, but if the costs are too high the State must pay compensation; the costs for national parks and nature reserves are to be borne by the State; there is to be more emphasis on extension service and less emphasis on law; there are to be more diverse forests; and environmental impact assessments are to be ensured.

30. The types of adjustments adopted by developed countries that are much less forested are illustrated by Denmark, where the post-UNCED strategy for State forests proposes, inter alia, a doubling of the forest area in one tree generation; a significant increase in non-intervention reserves and the

management of multiple-use forests; a greater focus on the conservation of biodiversity and genetic resources, and other environmental functions of forests. Portugal has adopted a national action plan on forests with similar provisions. In the Netherlands, a new forestry policy plan, inter alia, provides special tax arrangements for forestry and other incentives for replanting agricultural land. Luxembourg has adopted a so-called green plan.

Management, conservation and sustainable development of forests

31. There is evidence, especially in North America, of a general shift from sustained timber yield to sustainable forest ecosystem management, which provides multiple benefits while retaining overall system functions. In the north-western United States of America, there are proposals to ban clear-cutting; government lands must retain 15 per cent forest cover in logged areas; and the so-called President's plan of 1993 provides for the designation of new biodiversity reserves on federal lands in the region. One challenge is how best to reconcile diverse demands and secure consensus on trade-offs, such as in timber yield or employment and income, if they are affected by changed focus. Canada reports having implemented a so-called partners in the sustainable development of forests programme, which has established nine working-scale model forests and has enlisted all levels of government, aboriginal groups, industry and other forest interests in implementing SFM codes of practice; the continued use of clear-felling in harvesting is a point of contention. France adopted in 1994 an elaborate national plan to put into effect the Authoritative Statement of Principles; there is strict control of forest clearing and a tax has been imposed to discourage it. Policies protect all aspects of biodiversity.

32. Within the framework of the ministerial conferences on the protection of forests in Europe, European countries have established a network of permanent sample plots, whose performance will be used to gauge progress in sustainable management and health. A unified system for the management of protected natural areas of North America has been proposed to coordinate strategies for jointly protecting and conserving biological diversity in the protected natural areas of Canada, Mexico and the United States of America. In New Zealand, a revised law provides better protection for indigenous forests and a new tax regime has increased the profitability of forest growing. In 1993, Japan introduced a river-basin-based forest management system supported by service centres, supported mergers of forest owners' cooperatives and is increasing relevant funding.

Sustainable patterns of production and consumption

33. The main thrust towards SFM in almost all the developed countries has consisted of encouraging waste reduction. In the pulp and paper sector, the most significant progress has been an increase in the recovery and utilization of waste paper, a reduction of over-packaging and a reduced dependence on virgin wood pulp. The percentage of waste paper used for paper and paper-board production (also called waste-paper utilization rate) ranges from 100 per cent in Ireland to between 10 and 20 per cent in major pulp-exporting countries, such as Finland, Sweden and Canada. Some non-governmental organizations want paper and board to be made out of 75 per cent recycled fibres. The European Union and Japan have exceeded the 50 per cent waste-paper utilization rate (the global

average is 37 per cent). In the United States of America, the industry has voluntarily set itself a target of recovering at least 40 per cent of paper products by 1995.

34. The collection of used fibre is a key area of progress towards SFM: Sweden aims to increase its recovery to 75 per cent of newspaper and magazine paper by 2000 (from 63 per cent currently) and also to improve recovery in other fibre categories. In Germany, recovery has increased due to both legal and voluntary environmental pressures, with the German eco-labelling system (the Blue Angel) rewarding the use of recycled fibre. However, there are technical, economic and environmental limits to recycling. It is not yet feasible to reuse fibres indefinitely and new virgin fibres are required to maintain paper properties on a long-term basis. Moreover, the environmental costs of recycling, such as energy consumption for collection, and the negative impact on forest management and related environmental consequences, such as reduced carbon dioxide (CO_2) absorption, must be carefully considered and weighted against benefits when establishing objectives and policies.

35. Since UNCED, the production and consumption of medium-density fibreboard and oriented strand board (OSB) have continued to increase rapidly, resulting in reduced demand for plywood, with two environmental impacts: (a) a greater ability to use small wood and solid wastes permits reduced waste, due to almost complete raw material utilization in the forest and at mills, and (b) there is less need to select only the largest and best trees for harvest. These gains may reduce pressure on primary forests. Better utilization of wood raw material has also been obtained through further improvements in sawmilling equipment and controls, while higher yield is also made possible through the large-scale substitution of wood-based panels made from compressed wood chips for many solid wood components. In Austria, Denmark and Germany, incentives encourage the use of energy from biomass, thus reducing the use of fossil fuels.

36. A number of developed countries, such as the Netherlands, Denmark, Germany, the United Kingdom of Great Britain and Northern Ireland and Japan, have adopted policies to help save forests abroad, especially in the tropics. Many of them have accepted the International Tropical Timber Organization (ITTO) Year 2000 Target for achieving SFM. However, the question of certain countries exporting non-sustainability has also received attention: some non-governmental organizations maintain that, having damaged their own forests or made relatively little use of them, some countries help to over-exploit those of other countries. For example, some Japanese non-governmental organizations charge that Japan, which has considerable forests, exports unsustainability by producing only 25 per cent of its wood domestically and importing 75 per cent, mostly from South-East Asia, where forests have been rapidly depleted. It has also been suggested that low prices of timber in international trade encourage imports by making domestic production in high-cost countries uncompetitive.

Institutional strengthening and capacity-building

37. Many developed countries are adapting their governmental institutions to working more effectively with other interest groups and in a multisectoral context. Canada reports providing particular support to the forestry capabilities of aboriginal populations. Japan is improving the capacity of

local authorities, cooperatives and forest owners. An earlier trend towards separating the regulatory from the management/productive functions of national forest services in such countries as the United Kingdom of Great Britain and Northern Ireland, New Zealand and Sweden has continued, with the intention of improving efficiency. Finland, the United Kingdom of Great Britain and Northern Ireland, and Canada have emphasized establishing links with industry, agriculture, science and technology interests.

Forestry matters related to other chapters of Agenda 21 and the conventions on biological diversity and desertification

38. The role that forests play in conserving biodiversity has attracted more efforts than the role they play in moderating climate change. An increasing number of primary forest pockets are fully protected, new areas of forest have been reserved, and plantations are making greater use of mixed species, with indigenous species often being promoted. Incentives have been increased or have been better publicized for multiple-species forest plantations, including those established on land released from agriculture; this is expected to assist in carbon sequestration. In France, where it is estimated that action in support of forestry can only contribute 2 to 3 per cent to combating global warming, the Government is nevertheless supporting forestry for that purpose in view of its additional environmental benefits. Although the contribution of forests can only be modest in moderating climate change, some countries are also targeting the reduction of CO_2 emissions, while others, such as Canada, Sweden, the United Kingdom of Great Britain and Northern Ireland and Germany, are undertaking research into the interactions between forests and climate change.

2. Developing countries

Common areas of progress and problems

39. A few countries, such as Indonesia, have raised farm yields by providing official fiscal and market support, thereby initiating conditions that may eventually reduce the role of farm frontier expansion in deforestation. Poverty and policies resulting in reduced access to yield-enhancing inputs, including some elements of structural adjustment, are impeding progress in many other countries. In addition, many middle-income developing countries currently have declining population growth rates. Growing environmental awareness has led to some notable initiatives, such as the Regional Convention for the Management and Conservation of Forest Natural Ecosystems and the Development of Forestry Plantations, signed in October 1993 by the external affairs authorities of Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama. The Regional Convention promotes mechanisms for discouraging actions that cause forest destruction, replanting deforested areas, and establishing sound land-use planning and settlement policies in Central America.

40. Important challenges faced by the developing countries include the need for consensus-building on such issues as the place of industrial logging in SFM; the need for further progress in securing public involvement in the creation of forest policies and programmes; the reluctance of multilateral banks and many bilateral donors to fund logging and industrial processing projects; how to

ensure that those who depend on forests can receive enough benefits to refrain from diverting forest lands to more directly profitable uses; and the inadequate flow of funds and technologies for supporting the effective implementation of national forestry action plans (NFAPs). Notwithstanding UNCED calls for the systematic observation of forests, many countries, particularly in Africa, lack information on their forests. According to the FAO Forest Resources Assessment 1990, 66 of 90 tropical countries had carried out only one forest area assessment, of which 39 had been carried out before 1981. 12/

New or adapted policies, plans and strategies

41. Since UNCED, the preparation and implementation of NFAPs has continued, in many cases under the multi-sponsor Tropical Forests Action Programme (TFAP) or the related master plans for forestry development (MPFDs), which follow TFAP principles. A total of 92 countries have adopted the TFAP approach; since UNCED, 18 of these have finalized their NFAP preparation and seven have revamped their earlier plans in response to criticism for narrowness of approach, donor-driven programmes, excessive focus on project shopping lists and non-participatory orientations. Forestry components are often also included in national environmental action plans (NEAPs), which have been adopted mainly in Africa and are still in a learning phase. National conservation strategies have continued to be prepared with the assistance of the International Union for the Conservation of Nature (IUCN), while in some countries national sustainable development strategies (NSDS) have been prepared as well.

42. With the support of the United Nations Development Programme (UNDP), China launched a comprehensive national Agenda 21 in July 1994, under which it has maintained its long tradition of rapid afforestation and integration of trees into farming systems. A number of Latin American countries have adopted legislation and policies to eliminate incentives that formerly led to forest destruction; some have suspended the provision of harvesting permits and other utilization, pending suitable plans. An example of innovative development is a provision under the Regional Convention (see para. 39 above) for creating environmental attorney general's offices within the legal framework of each participating Central American country to oversee the protection and improvement of forests. In Malaysia, a revised national forestry policy was approved in 1992 and a new national forestry act was adopted in 1993; in addition, land was designated as permanent forest estate and a continuous forest monitoring system was made operational in 1993. Since 1993, Malaysia has granted owners of private forest plantations full tax exemption for 5 to 10 years under various fiscal initiatives. Cambodia, Myanmar and Samoa have also adopted new forest policies; Namibia is implementing its new forestry policy, which was adopted at about the time of UNCED.

43. Ecuador established a high-level environmental commission and in 1994 issued an environmental policy that aims, inter alia, at greater participation by all parties, including those hitherto marginalized. The Philippines has established a council to steer its new forestry code and national Agenda 21. The Central African Republic is implementing its 1992 UNCED strategy for sustainable development, which has major forestry components.

Management, conservation and sustainable development of forests

44. Much progress has been made in the continuation of existing programmes. There has been increased attention to conservation by such means as creating or expanding protected areas. Under its pilot phase, the Global Environment Facility (GEF) funded some 20 developing country projects, mainly in protected areas and including wildlife management. India has issued guiding principles that govern criteria and indicators for SFM, and assessed forest cover in 1993; in March 1994, it led efforts to form the Global Tiger Forum for the protection of the tiger and its habitat in all tiger-range countries. Ghana has prescribed operational procedures or standards consistent with ITTO guidelines for the sustainable management of the natural tropical forest. In 1992, Mexico initiated a national forest inventory and enacted a forest law. Pakistan has allocated one fifth of available resources to forestry and watershed protection under the 1993-1998 environment portfolio of its proposed national conservation strategy. Thailand's so-called greening programme was launched in 1994.

Promotion of sustainable patterns of production and consumption

45. Major timber-exporting developing countries are concerned about initiatives in developed countries that can threaten their traditional markets. Partly to respond to concerns in market countries, they are promoting work on the application of criteria and indicators for SFM. For example, some member countries of the African Timber Organization, along with Brazil, Indonesia and Malaysia, may soon start domestic sustainability certification; in the case of Brazil, work related to forestry is being pursued in the context of developing overall indicators of sustainable development. India has focused on reducing logging waste; Viet Nam has altogether banned the logging of some rare species. Some developing countries are promoting paper fibre recycling: in the Philippines the waste-paper utilization rate is 75 per cent, while in Singapore and Hong Kong it is almost 100 per cent. Helicopter logging, which is expected to be more environmentally friendly, has been introduced on a pilot scale. Pre-UNCED programmes to improve the efficiency of wood stoves in order to reduce fuelwood demand have continued in many countries.

46. In the Asia and the Pacific region, one development that has implications for conservation is the rapid increase in rubber wood processing to substitute for certain tropical hardwoods that risk depletion. In Malaysia, rubber tree clones that are more suited for timber production are being developed.

Institutional strengthening and capacity-building

47. Although capacity-building preceded UNCED, the level of efforts still remains inadequate. The most important symptoms reflecting insufficient capacity include the slow pace of policy and institutional reform; weak intersectoral coordination; the non-adoption of forestry programmes as priorities at the highest political levels; the lack of clearly defined priorities; and a continuing over-reliance on external technical assistance. One key problem that has not diminished since UNCED is the low hierarchical profile of forestry institutions in many countries. The absorption of many forestry authorities into larger bureaucracies as well as other developments that diminish their profile make it more difficult for them to influence policy

or priorities. Under such conditions, even institutional strengthening can only have a sub-optimal impact on the effectiveness of forestry authorities at the national level.

48. Post-UNCED capacity-building efforts have occurred at three levels: (a) creating an enabling environment; (b) strengthening the capacities of government institutions; and (c) strengthening the capabilities of non-governmental organizations, local communities and individual citizens, including those of forest-dependent communities. Some aid agencies, notably the World Bank, the Asian Development Bank and many bilateral donors, wish to see a clearer division of labour between Governments (regulatory and enabling roles) and other actors, with productive or commercial activities generally being assigned to commercial private non-governmental interests. For some countries with more limited entrepreneurial and non-governmental capacities, some pragmatism may be needed in applying the principle of a strict division of labour between Governments and other development actors.

49. The most deliberate post-UNCED initiative in capacity-building remains the UNDP Capacity 21 programme, launched in 1993, for which more funding is needed. Other multilateral and bilateral agencies have also focused on capacity development since UNCED; TFAP, for example, has continued to emphasize country capacity projects.

Forestry developments relevant to other chapters of Agenda 21 and the conventions on biological diversity and desertification

50. In support of the conservation and management of biodiversity, Malaysia has established a committee, formulated or adapted policy and legislation, created a new programme of genetic resources areas, continued the Virgin Jungle Reserves (VJRs) programme first started in 1950, and is establishing a national medicinal plant research centre. Tunisia, in the context of the fight against desertification, has included a 10-year programme on forestry, water and soil conservation. In Algeria, many forestry activities are undertaken in the context of the conservation of biodiversity and action to combat desertification. Some countries have pilot projects on carbon sequestration. Partly due to increased concern for biodiversity, World Bank lending to support its conservation has risen from 5 to 11 per cent (US$ 280 million) of its forestry project portfolio and other multilateral banks report similar increases. GEF has supported 13 biodiversity projects in all regions of the developing world.

3. Economies in transition

51. Since UNCED, the economies in transition have been preoccupied with the enormous problems that transformation to a market economy involves, but many have nevertheless revised their forestry policies and laws to reflect the latest thinking and are also adapting their institutions accordingly. European economies in transition have participated in the ministerial conferences for the protection of forests in Europe held first in Strasbourg and later in Helsinki, where European commitment to the sustainable development of forests in line with UNCED principles was reaffirmed. 13/ Slovenia has a new forest act and a

strategy for the sustainable development of forests that reflect the Helsinki resolutions and the Authoritative Statement of Principles. The Czech Republic adopted new principles of forest policy in May 1994.

52. GEF has reported that projects on biodiversity are under way in five European economies in transition. Some non-governmental organizations have expressed concern at threats to primary forests posed by recent large forest development loans, especially in Belarus, Poland and Slovakia.

C. Experiences of major groups

1. Non-governmental organizations

53. In the forestry sector, environmental and other non-governmental organizations have played important watchdog and promotional roles in monitoring the adoption by various interest groups, including Governments and international organizations, of the social and environmental principles of UNCED. They have been instrumental in keeping the spirit of UNCED alive and ensuring that certain issues remain at the forefront of international debate on forestry policies and priorities. Among the issues advocated by non-governmental organizations are the needs for transparency and access to information, the right to consultation, and full involvement and access to forest-based livelihoods by forest-dependent peoples; greater use of traditional knowledge in forestry; public participation in decision-making and the implementation of SFM; a greater emphasis on the conservation of biological diversity in forest management; a greater role for forests in carbon sequestration; compensation to countries (many developing) for contributions to global benefits of forests beyond domestic needs; ensuring ecologically sensitive choices of species and plantation regimes; environmental impact assessments; more environmentally friendly harvesting and industrial processing; greater use of sustainably-sourced forest products; responsible consumption patterns; and greater recycling of forest products.

54. Non-governmental organizations have frequently challenged what they perceive to be destructive or culturally insensitive practices in both developed and developing countries. In Germany, 22 non-governmental organizations issued the Frankfurt Declaration on Labelling Initiatives for Timber and Timber Products, and have called, inter alia, for the exclusion from the domestic timber product market of "predatory sources", as well as for compensation to tropical forest countries for protecting exceptionally high levels of biodiversity. Recent issues have included challenges to forest management practices in North America, Scandinavia, the Russian Federation, the Amazon, Central America, South-East Asia and Melanesia. Advocacy non-governmental organizations have made use of many media, including drafting advisory guidelines or strategies, such as Greenpeace International's principles and guidelines for the ecologically respectful use of forests and the Global Forest Strategy of the World Wildlife Fund (WWF).

55. Non-governmental organizations have actively promoted the application of criteria and indicators of SFM by assessing forest management, processing and trade practices for compliance. WWF has developed a set of four criteria of forest quality: authenticity, forest health, environmental benefits, and social

and economic values. The Forest Stewardship Council (FSC), a non-governmental organization initiative, was established in 1993 to provide reliable information about forest products sources, help to eliminate confusing and false claims, and give credibility to certification by accrediting certifiers. 14/ Economic interests control 25 per cent of the FSC vote, while social, environmental and other interests hold 75 per cent. In June 1994, FSC established a set of principles and criteria to be applied to all tropical, temperate and boreal forests.

56. Various "operational" non-governmental organizations, both international and local, as well as a number of community-based organizations, have played a critical role in the practical implementation of grass-roots conservation and forest-based livelihood programmes, as well as in local empowerment and capacity-building. At the international level, non-governmental organizations have helped to make TFAP more participatory and more directly focused on the needs of vulnerable groups. Some non-governmental organizations operate world wide, including CARE International, OXFAM, WWF and Rotary International (which works through its local chapters to support local voluntary forestry activities).

57. To benefit from some perceived strengths of the non-governmental organizations, many international and government agencies are making efforts to cooperate more and have better working relationships with them. In the Philippines and Colombia, protected areas are co-managed with environmental non-governmental organizations, while some countries channel aid directly to them. Non-governmental organizations routinely participate in operations funded by the Inter-American Development Bank (IDB). The Regional Convention (see para. 39 above) supports popular participation, cultural diversity and the rights of inhabitants of forested areas in Central America. France has progressively made nature protection associations close partners of the Government in designing forest policy or addressing particular issues.

Perception of progress and areas for improvement

58. Some non-governmental organizations indicate that they have encountered a number of difficulties in realizing their roles in forestry, including Government reticence to deal with them; a tendency on the part of some Governments to stage-manage their participation; being co-opted and compromised by financial, procedural or legal means; having their decision-making autonomy undermined; occasional hostility; and attempts to marginalize or exploit them. On the other hand, a number of other interest groups maintain that advocacy non-governmental organizations are sometimes unwilling to place issues in the perspective of other pressing concerns or to acknowledge the limited resources that make it difficult to address all matters with an equal emphasis or urgency.

59. Many non-governmental organizations feel that progress could be faster, pointing to continued forest damage and the apparently low levels of grass-roots involvement, and calling for the implementation of the FAO Peasants Charter to correct skewed land ownership or access patterns, which concentrate human pressure on the few forests that are accessible to the poor, thereby contributing to their degradation and loss. They also call for ratification of

the ILO Convention on Indigenous and Tribal Peoples and negotiation of the draft United Nations convention on indigenous people.

2. The commercial private sector 15/

60. In many countries, the policy climate favours free markets and minimal government intervention; however, market forces are not adequate to ensure that adequate attention is paid to environmental protection. Nevertheless, Sweden expects private forest owners to cater for environmental services; State inputs are provided only if the burden becomes too high. At the international level, commercial private-sector efforts to follow up UNCED are promoted by such groups as the International Network for Environmental Management (INEM) in Germany or the Business Council for Sustainable Development (BCSD) in Switzerland. BCSD has established task forces on, inter alia, internalizing social and environmental costs in prices, and conducting a global study on the environmentally sound production and use of paper.

61. The American Forest & Paper Association (AF&PA), whose members account for more than 90 per cent of domestic paper manufacturing capacity, 65 per cent of solid wood production and 95 per cent of industrial forest land in the United States of America, has opted to use codes of practice to promote SFM. AF&PA has adopted its own sustainable forestry principles and implementation guidelines; from 1996, adherence to the principles and guidelines will be a condition of membership. The general public will be kept informed and can directly evaluate the industry commitment and monitor progress towards SFM. The guidelines are intended to be an alternative to unilateral labelling schemes, boycotts and other trade barriers employed in promoting SFM. The retail sector has participated in pressing for the certification of timber for its sustainable origin; some retailers now accept only or mostly certified timber. In the United Kingdom of Great Britain and Northern Ireland, WWF has begun a so-called 1995 club, under which 24 retailers have agreed to sell only wood from sustainable sources by 1995.

62. To facilitate private-sector efforts in achieving SFM, forest products prices should more accurately reflect the true values and increased costs associated with sustainable management of the resource, including environmental costs. 16/ Consumers would have to accept higher prices for sustainably produced forest goods and services, their willingness to do so, however, has yet to be ascertained on a large scale. It is not certain whether forest products based on higher-priced raw materials could still compete with substitutes; if not, whether the use of such alternatives would constitute an environmentally superior option would be open to question.

63. One important government incentive that could be provided for achieving SFM would be to create policies that would favour private investment and entrepreneurship into value adding industries over wood or non-wood trade in raw materials. An example of what considerable investment in technology, human resources development and local entrepreneurship can achieve is the evolution of policies on forest utilization that has occurred in Indonesia from the export of raw logs to the local processing of timber products. The private sector will

continue to need assurance of long-term security in its access to forest resources if it is to strengthen its commitment to their sustainability.

3. Other major groups and civil society

64. Local governments are often at the forefront of setting and enforcing regulations in many countries. Thus, in some developed countries even though national Governments may have no restrictions on tropical timber, some local governments continue to apply discriminatory practices against tropical timber, as exemplified by the local authority bans on tropical timber in Germany, the Netherlands and the United States of America mentioned above (see para. 21). Mechanisms are evidently needed for involving local governments in dialogue in order to promote even-handed approaches. Among the initiatives of civil society, the launching of the independent World Commission on Forests and Sustainable Development (WCFSD) is notable. WCFSD, which is supported by the InterAction Council of former Heads of State and Government, plans to report to the Commission on Sustainable Development in 1997 on matters related to awareness raising, North-South cooperation and consensus-building.

65. The Executive Committee of the International Federation of Agricultural Producers (IFAP) feels that farmers are ready to embrace more sustainable practices, provided that these are ecologically sound, profitable and allow viable rural economies. In the developed countries, farmers responding to policies for reducing surplus food production may transfer some land to forestry. The Organisation for Economic Cooperation and Development (OECD) intends to study further the linkages between farm forestry and rural development in the context of agricultural policy reform. In poorer countries, FAO and the World Bank, among other agencies, have observed significant farmer success in integrating trees into farming systems when market opportunities exist.

66. The role of forest-dependent peoples is highlighted under the new forestry policy of the Asian Development Bank, which intends to give forest-dependent peoples an economic stake in forests. Viet Nam and India have variously encouraged participation by local inhabitants and forest dwellers. During the 1993 International Year of Indigenous Peoples, Belgium organized a meeting on the forest populations in Africa, insular Asia and South America.

D. Matters related to finance and technology

1. Finance

Context

67. Prospects for forestry funding should be seen against the background of broad macroeconomic and international development cooperation issues, including debt and its relief. These broader issues are covered by the Commission's Inter-Sessional Ad Hoc Open-Ended Working Group on Finance (ISWGF) and will not be treated in the present report. ISWGF will review the influence of the international policy environment on funding flows, and will make recommendations

on the mobilization of domestic resources and the creation of innovative financial mechanisms.

68. In most countries, local resources, including government finance or fiscal measures, private-sector investment and in-kind efforts of communities or individuals, are the main source of funding for forestry conservation and development. External funding from official sources has only a supplementary role; much of this is bilateral rather than multilateral aid. International private-sector flows may equal or exceed official aid in such fields as forest industries. However, there is no significant information available 17/ on all these major types of funding. Notable pledges were made at UNCED but information on progress in their fulfilment was not available for the present report. Japan had pledged that its environment ODA would increase from US$ 9 billion to US$ 100 billion over five years (1992-1997), some of which would benefit forestry; official sources have indicated that that commitment had already been half fulfilled by fiscal year 1994. In the future, a number of developed countries plan to increase their allocations for the environment. For example, the international environment and nature fund of the Government of Denmark is expected to reach 0.5 per cent of GNP by 2002.

69. The conservation and environmental functions of forests, which depend most on public financing, are most underfunded in many developing countries, whose government budgets are often severely limited. Some developing countries are unable to raise adequate revenues from forest goods or services due to low prices, a lack of administrative capacity to collect fees and illegal trading. For such countries, a key issue remains their heavy reliance on external financing.

Level of international funding for forestry: trends and priorities

70. An FAO survey of ODA showed that between 1988 and 1990 ODA for forestry (mostly tropical) grew at an average of 11.3 per cent annually to reach about US$ 1.4 billion in 1990. 18/ The 1990 level is only about a quarter of the UNCED target; it would therefore take an annual growth rate exceeding 20 per cent to reach Agenda 21 targets by the year 2000. However, the lack of reliable data on either financial resource flows from private and public sources at the national level or on the returns to such investments makes it impossible to judge the adequacy of those targets.

71. Forestry lending by the World Bank, the largest multilateral lender for forestry, more than doubled in the early 1990s compared with the early 1980s: the latest annual average lending figures are about US$ 1.6 billion, compared with about US$ 0.6 billion in 1980-1982. Recent lending shows some remarkable similarities with the profile of funding requirements contained in chapter 11 of Agenda 21. 19/ The International Finance Corporation (IFC) supports private-sector investments: in the last three years, it has committed US$ 40 million to wood industries and US$ 160 million to pulp and paper projects. Since 1977, the Asian Development Bank (AsDB), has made cumulative forestry loans amounting to US$ 794 million (annual average US$ 39.7 million), while technical assistance stood at $US 40.8 million as of 31 December 1993 and forestry components in broader projects accounted for another US$ 5.2 million. In 1993, the Inter-American Development Bank (IDB) disbursement of projects in forestry stood

at approximately US$ 65.3 million; since 1974, annual lending for forest resources management has averaged US$ 17.0 million, totalling US$ 107.8 million during 1991-1993, while forestry-related technical assistance since 1980 stands at US$ 27.8 million. The African Development Bank (AfDB) has been active in forestry lending since 1978; AfDB lending to the forestry sector had reached US$ 275 million by the end of 1994.

72. GEF funds forestry activities related to its four focal areas: climate change, biological diversity, international waters, and depletion of the ozone layer. In these areas, GEF can provide financial resources for activities that generate global environmental benefits; for example, GEF can meet the incremental costs of activities, such as reforestation, that are intended to address land degradation. Commitments under the pilot phase (US$ 732.6 million) went primarily to the conservation of biodiversity (43 per cent), and included support for a number of projects on forestry, the in situ conservation of plant genetic resources, wildlife management and game ranching, and watershed management involving afforestation. As to financing technical assistance in the forestry sector, the leading source in the United Nations system is UNDP, particularly through allocations under the indicative planning figures (IPF) of countries: in 1993, UNDP provided US$ 20.3 million for forestry world wide through FAO alone, while in 1992 it provided US$ 10.1 million for Asia alone. 20/

Lending priorities and policies of multilateral banks

73. The World Bank, AsDB and IDB generally focus on the creation or management of forest resources, with forest industries receiving only a very modest attention. The World Bank lending profile is similar to those of the other two banks: it currently allocates a quarter of its lending to the expansion of forest resources. For the World Bank, the most striking changes have been an increase from 7 to 27 per cent in funding for restorative and protective (i.e., environmental) activities; an increase from 1 to 14 per cent in funding for alternative livelihoods; a decline from 32 to 23 per cent in the share of funding for resource expansion (although the dollar amount increased 12 per cent); and a decline from 10 to 0.4 per cent in funding for infrastructure forest roads.

74. The World Bank, AsDB and IDB will not support any logging in primary forests, and will encourage the preservation of such forests and the designation of conservation areas. Current thinking appears to be that if industrial projects are worthwhile, then they will be attractive to the private sector and will not need multilateral or aid funding. There is a willingness, however, to finance smaller-scale industrial projects. IDB has three special lines of financing for the private sector, of which two support small and medium-scale operations, while the third supports an investment corporation equivalent to the World Bank's International Finance Corporation and can cover investments up to US$ 40 million. The opportunities thus provided for assisting smaller-scale industry may offer prospects for assisting many smaller, poorer countries that would have difficulties attracting purely private capital. All the main multilateral banks emphasize the need for forest-sector investment lending to be preceded by strong sectoral analysis, policy dialogue and institutional reform, including taking steps to improve regulatory and legal frameworks in forestry

and to integrate sector aims and objectives with wider economic and environmental concerns.

Conditions affecting the effectiveness of funding

75. On a global basis, one major factor affecting the overall effectiveness of external financial assistance is the fact that it goes to so few countries, which are not necessarily those that need assistance most. Thus, about 44 per cent of total 1990 ODA flows went to the Asia and the Pacific region and another 33 per cent to Africa; yet Latin America and the Caribbean, which account for nearly half the world's annual tropical deforestation, received only 18 per cent of forestry ODA. 21/ Similarly, of the US$ 3.2 billion committed so far under TFAP, the top 10 countries account for 94 per cent of commitments, leaving the other 20 countries and 1 subregion to share a mere 6 per cent; the top recipient country alone accounts for 35 per cent of total funding commitments. 22/ Other problems that reduce the effectiveness of external assistance have been identified in a study sponsored by the Forestry Advisers Group (FAG) 23/ and include the following: (a) international assistance projects reflect funding agency priorities more than they reflect the priorities of national forestry action plan strategies; (b) donor coordination by beneficiary countries is working poorly because donors often have unmatched approaches or priorities; and (c) some external agencies are insisting on a rigid application of their own procedures. The revised country-driven TFAP operating principles and guidelines were designed to minimize such problems but have not been fully implemented by some Governments and lending agencies. Consequently, some donors and international agencies are applying several frameworks for the same tasks in a single country, examples being TFAP itself and the national environmental action plans (NEAPs). To address that problem, FAG is trying to harmonize donor approaches: several donors are involved in a test case in Guyana under a common strategy for the sustainable management of the country's natural resources, including its forests.

Innovative funding mechanisms

76. Debt-for-nature swaps were the first innovative financial mechanism: started in 1987, they continued after UNCED and by December 1992 had generated approximately US$ 76 million for conservation in developing countries. IDB also undertakes debt-for-nature swaps, for example financing a US$ 100 million project of that nature to improve the quality of the Mexico City environment in 1993. A number of other mechanisms are being tested, as follows: (a) Colombia planned to divert income from coffee price-support reimbursements by the European Union to SFM; (b) the Regional Convention (see para. 39 above) provides for participating Central American Governments to create national forestry funds and ensure the reinvestment of forestry income into the forest resource; (c) tax holidays and other fiscal incentives, some initiated long before UNCED, are being applied by Chile, Brazil and Malaysia. One problem facing fiscal incentives is that in countries undergoing structural adjustment, such instruments tend to be discouraged by external agencies. Two alternative suggestions are (a) to tax the exploitation of resources and channel revenues into SFM, and (b) to convert debt to tradeable bonds for sale through financial markets. AsDB is carrying out a regional study on financing mechanisms for environment programmes involving domestic, private-sector and venture capital.

2. Technology

77. A major new development is the establishment, under the Consultative Group on International Agricultural Research (CGIAR), of the Centre for International Forestry Research (CIFOR), which complements the International Centre for Research in Agroforestry (ICRAF) within the CGIAR centres most relevant to forestry. CIFOR is, inter alia, studying better species/site matching; the dissemination of research information to users; global benefits, such as the conservation of biodiversity; and non-wood forest benefits to local communities. The International Food Policy Research Institute (IFPRI) is researching ways to sustain the productivity of farmland and thus reduce the demand for new land-clearing. The FAO Forest Research Support Programme for Asia and the Pacific (FORSPA), funded by the Asian Development Bank, UNDP and the Government of Switzerland, has continued. FORSPA provides a model for promoting capacity-building and low-cost, mutual, South-South self-reliance; FAO is promoting a similar programme for sub-Saharan Africa. Despite efforts under way, even in areas in which high productivity is essential to ensure adequate supplies for industry (without excessive demand for land) or for other reasons, forestry has not yet achieved the equivalent of the "green revolution" that benefited agriculture. Lessons from agriculture point to a need for increasing productivity but also assuring social and environmental responsibility and ensuring that any new technologies are made accessible to forest-dependent communities.

78. Non-wood forest products, which can play a very important role in ensuring forest sustainability, do not feature adequately in research and development. Yet there is much potential for improving the utilization and management of genetic resources, medicinal plants, phyto-chemicals, natural fibres, gums and resins, etc. For medicinal plants, one option would be to conclude agreements between large pharmaceutical companies in developed countries and the owners of forest resources in developing countries; an example is the agreement between INBIO of Costa Rica and Merck & Co., Inc. in the United States of America, under which Merck funds research and pays a royalty on any useful pharmaceutical or chemical compound that is isolated in exchange for plant, insect and other forest materials supplied by INBIO.

79. The above-mentioned international examples need to be more carefully emulated by providing greater attention to strengthening country-level capacities and facilities in the developing countries and to better disseminating the results of research. Such results need to be made more accessible to low-income farming communities, farmers and forest-dependent peoples in developing countries so as to help enhance their sustainable livelihoods; for that purpose, modern scientific and technological practices may need to build more systematically upon indigenous or local knowledge and practice.

E. Recent developments and experiences in international cooperation

1. Intergovernmental processes

80. Since many environmental issues are transboundary, regional cooperation in this area will be increasingly important. The prime ministers of Australia, Fiji, New Zealand, Papua New Guinea, the Solomon Islands and Vanuatu have agreed to work towards a common code of conduct for logging and log exports from indigenous forests. Forestry activities are also significant in other regional groupings, such as the European Union, the Amazon Cooperation Treaty and the Southern Africa Development Community (SADC).

81. Under the Helsinki process, which originated from the Second Ministerial Conference on the Protection of Forests in Europe, in June 1994 European countries adopted a list of six criteria and 27 indicators on forest health and vitality, productive biodiversity and protective functions, and the socio-economic dimensions of forestry. For non-European temperate and boreal forests, the search for criteria and indicators started with a workshop organized in October 1993 by the Conference on Security and Cooperation in Europe (the so-called Montreal process). The Intergovernmental Working Group on Forests (IWGF, the so-called Canada-Malaysia initiative) met twice in 1994 and addressed forest conservation; criteria and indicators; trade promotion and the environment; new approaches to finance and technology transfer in forestry; institutional linkages; people's participation; and cross-sectoral linkages. In preparation for the third session of the Commission on Sustainable Development, an initiative undertaken jointly by the Governments of India and the United Kingdom of Great Britain and Northern Ireland sponsored a workshop at which a format for national reports was adopted.

82. A precursor of the recent work on criteria and indicators is early ITTO work on guidelines and criteria for the management of tropical forests. Well before UNCED, ITTO established a target for achieving SFM by 2000 and issued guidelines for the sustainable management of natural forests (1990) and planted forests (1993) as well as criteria for the measurement of sustainable tropical forest management (1992).

83. The large number of initiatives undertaken by various interest groups have resulted in duplication of efforts, dispersal of resources and difficulty in effectively exploiting the full outcome of each initiative. There is also a concern to ensure that (a) countries commit themselves firmly to achieving SFM and to applying agreed criteria and indicators; (b) the differing capacities of countries to fulfil the requirements of whatever standards are agreed upon under the initiatives is recognized; (c) time is allowed for criteria and indicators to be tested in practice before general adoption; (d) all agro-ecological regions and possibly all countries participate in the international debate; and (e) there is global harmonization of initiatives among all regions. 24/ To initiate the pursuit of harmonized objectives, FAO created an opportunity for a review of the various initiatives in February 1995 and at the March 1995 session of its Committee on Forestry and the associated meeting of ministers responsible for forestry.

2. Organizations and bodies of the United Nations system

84. The principal response to UNCED of the organizations and bodies of the United Nations system has been to review their programmes and to deliberately reorient their activities towards UNCED objectives, in particular by establishing new organizational units to focus on sustainable development. The post-UNCED roles of the World Bank and GEF in financing have been presented above. As also mentioned above, UNDP has launched Capacity 21 under which resources have been made available for capacity-building in forestry to supplement IPF allocations for forestry, which have always been important for technical assistance in this sector. FAO, as task manager, organized a consultation in March 1993 that led to the establishment of the E-mail group, a network that facilitates liaison among member intergovernmental and non-governmental organizations; some non-governmental organizations have called for its membership to be expanded and broadened. Like many other agencies, FAO has prepared a strategy for its involvement in the follow-up to UNCED and has distributed the strategy to member countries. FAO also convened a meeting of the bureaux of its regional forestry commissions to secure regional inputs into preparations for the present review of forestry, held a meeting of high-level external experts to chart future directions for forestry, and in February 1995 was to have convened meetings of the leaders of ongoing initiatives on establishing criteria and indicators for SFM. With UNEP funding, FAO is also organizing regional meetings in Africa, Asia and the Pacific, and Latin America and the Caribbean for a similar purpose, and will have convened, in connection with its Committee on Forestry in March 1995, meetings of the private sector, non-governmental organizations and ministers responsible for forestry to contribute to preparations for the present session of the Commission on Sustainable Development.

85. A feature of recent initiatives on the part of the United Nations system and other intergovernmental organizations is the effort that has been made to involve non-governmental interests. ITTO is reported to set no limit on the number of non-governmental organizations participating in formal sessions of its Council and has simplified procedures for them to do so. Non-governmental groups participate in FAO expert groups. FAO meetings of private industry and non-governmental organizations have been mentioned above. Furthermore, as also reported above, under TFAP the FAO Council has established a Consultative Group that will include representatives of all interest groups.

86. Many agencies, notably the World Bank, UNEP and FAO, are involved in or are initiating analytical work that is aimed at improving methodologies for the valuation of forest goods and services, thus promoting greater appreciation of their worth in land-use decision-making. This work benefits from close cooperation among non-governmental organizations, Governments and non-United Nations agencies, such as universities. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has pursued its participatory approaches under the Man and the Biosphere (MAB) programme. The general aim is to seek out ways to reconcile nature conservation with human needs and to underpin the programme with international scientific cooperation. MAB reserves consist of a strictly protected core, a surrounding buffer area to accommodate more human activities and outlying transition areas. Biosphere reserves form a global network that as of mid-1994 comprised 323 sites in 82 countries, covering

an area of more than 211 million ha. In the interest of reducing wastage, FAO has prepared a draft model code of forest harvesting practice, primarily to serve as a basis for country-level codes of forest practice.

87. In recognition of the health dimensions of forestry and the close association of diseases such as malaria or typhus with forests or with deforestation, the World Health Organization (WHO) established a task force on environment and tropical diseases in 1993. In view of the association between the forest environment or the management of forests and malaria transmission, the results of future research should be considered in formulating national forestry action plans.

3. Organizations outside the United Nations system

88. Several initiatives involving international cooperation have been presented in sections II.C and II.D.2 above and need not be repeated here; official development assistance provided bilaterally by donors is covered in section II.D.1 above.

III. CONCLUSIONS AND PROPOSALS FOR ACTION

A. Future demands on forests

89. The need to sustain forests and to manage them for future generations is based on an appreciation of the growing demands on their services. Information available in an FAO study entitled "Agriculture: towards 2010" 25/ indicates that in the period between 1995 and 2010, the total land under crops will increase to 850 million ha, with most new expansion occurring in sub-Saharan Africa and Latin America. During the same period, about 85 million ha of forests are expected to be cleared for agriculture. The same study reports that, since 1961, the world production of industrial roundwood has increased by 50 per cent, production of wood-based panels by 600 per cent, and production of paper by 350 per cent, with production of fuelwood nearly doubling. Between 1990 and 2010, the consumption of all wood products is expected to continue growing, with rates ranging from 1.2 per cent per annum for fuelwood and charcoal to 3 per cent per annum for paper and 4.3 per cent per annum for panel products. There will also be growth, even if unquantified, in the demand for the non-wood forest products that are essential for rural societies, such as medicinal plants; for rural employment and income; for recreation based on forests and wildlife; and for the protective roles of forests. Forest gene pools will remain of crucial importance.

90. These trends are indicative of the pressures that forests can be expected to meet. Efforts to contain consumption levels and reduce waste can have some effect, but since consumption and the generation of waste are also largely driven by population growth, there are limits to the containment approach. It will be necessary to create additional forest resources and better manage existing ones to meet the growing demand, which will require sound decisions and early action to resolve current problems and put into practice the programmes established at UNCED.

91. Fundamental to ensuring a commitment to take action are (a) knowledge of the true value of the resources and the alternative resources that could be produced from the land, and (b) quantification of the implications of its alternative use, loss or degradation. Yet techniques for the valuation of forest goods and services are not yet able to provide solid justification for policy and investment decisions. The information base that is required to improve the effectiveness of action also remains weak: information on forest resources is still inadequate. For that reason, a key area that requires the attention of the Commission on Sustainable Development is the need for further work at the national and global levels on the valuation of forests and associated assessments of the state of and trends in the use of forest resources. In this regard, the recent FAO decision to publish biennial assessments of the state of forests will be useful.

92. To carry out such information tasks and maintain the strategic direction of the sector will require national institutions with enhanced capacities. Yet the sector faces an anomalous situation: although it has captured a central place in the development agenda, its public institutions are often among the weakest in public administrations, and they often fail to attract the degree of resources and political support that are essential for success or to influence the policies that govern competing sectors. They are also unable to either adequately facilitate the effective participation of non-governmental interests in the sustainable management of forests or provide assistance to non-governmental groups, such as community organizations interested in making a contribution.

93. It is also important for institutions to adapt to working through the interfaces that exist between forestry and other sectors, such as the sectors responsible for agriculture, biological diversity, energy and trade; this will call for the reform of institutions in all the sectors involved. In terms of land use, some form of clearing-house arrangements may well be needed in many countries to ensure that land-use changes are reviewed by all parties concerned before they are initiated.

B. Expectations, common goals and instances of serious disagreement

94. There is a sense of urgency among all the interest groups involved with forests. However, perceptions of what to expect from the present session of the Commission on Sustainable Development vary, partly due to a lack of clear information on the role of the Commission. Many Governments, particularly the Governments of timber-exporting countries, hope that the Commission can facilitate regaining a commitment to open-trade arrangements in major market countries in recognition of the efforts of timber-exporting countries to improve the environmental soundness of their forest-management practices. Some interest groups, particularly non-governmental organizations, feel that the primary goal of the Commission should be to help prepare a global strategy that will quickly halt and reverse the deforestation and degradation of the world's forests. They expect firm goals and timetables, with a clear allocation of responsibilities. Some interest groups expect the Commission to launch an independent assessment of the role of the principal multilateral specialized institutions working on

forests (FAO, ITTO, UNEP etc.), the role of the multilateral funding institutions that are active in forestry, and the role of various frameworks and conventions, with a view to recommending the actions that will be required to enhance coordination, to eliminate redundancies and, if necessary, to redefine those roles.

95. In order to enable the Commission to focus on areas that are not adequately covered by other international institutions or mechanisms, the matters drawn to its particular attention have been selected in view of their having one or several of the following attributes: (a) they are simultaneously of pressing concern to governmental, non-governmental and private-sector interest groups, and therefore cannot fully be addressed to the satisfaction of all three parties by any existing intergovernmental forum or mechanism; (b) they are matters whose high profile and/or urgency requires the attention of the Commission, and (c) they are UNCED priorities of a cross-sectoral nature.

96. All interest groups, without exception, endorse the goal of achieving SFM; they are, however, taking different paths towards it. The proposals of all groups would ultimately lead to the same goal of SFM, which involves achieving a balance between conservation and use of forests that does not damage their multiple ecosystem capacities and at the same time meets human development and social needs. Nevertheless, three years after UNCED, the deep convictions that interest groups in the sector hold concerning the kind of action that should be taken to fulfil this common goal do not fully coincide; in some cases, they remain markedly divergent.

97. The main ways in which interest-group perceptions differ are the following: (a) they do not all have the same perception of the meaning of "unimpaired" forest and attempts to establish the "natural state" of the forest as an alternative have not settled the problem; there is no universally accepted definition of sustainability in forestry; (b) interest groups cannot agree on establishing boundaries to sustainability: some groups seek to ensure sustainable management of all forests everywhere, while others do not believe that to be possible; and (c) timetables for achieving SFM vary considerably: the impression is given by some interest groups that SFM must be achieved immediately, while others envisage a more progressive transition.

98. These contrasting perceptions partly explain the lack of coherence in post-UNCED activity, as reflected in numerous sector meetings. High visibility has been given to intergovernmental processes, but non-governmental organizations and the private sector have also been active. Thus, much activity and debate has been confined to parallel forums that effectively isolate the three main constituencies: Governments, non-governmental organizations and the private sector.

99. In international affairs, the governmental function of decision-making requires that there be forums in which other parties must necessarily have non-principal status. Therefore, the approach taken by FAO, ITTO and other intergovernmental bodies to providing the opportunity for all non-governmental interests to meet among themselves and together in advance of governmental meetings, so as to discuss the controversial issues related to forests and arrive at an initial consensus on ideas and attitudes, should have the full

support of the Commission. Any formulas, forums or other mechanisms that are utilized should ensure that all three major interest groups feel equally at ease to discuss issues and to prepare a basis for full compromise and consensus. Consensuses secured in that way can then be formalized within existing intergovernmental structures.

C. Proposals for the consideration of the Commission on Sustainable Development: future action

100. In noting the efforts of Governments and all interest groups to implement the provisions of the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Development of All Types of Forests and Agenda 21, and their efforts to reflect those instruments in their policies, strategies and action programmes, the Commission on Sustainable Development may wish to encourage Governments and all interest groups to mobilize adequate resources for implementing the Authoritative Statement of Principles and Agenda 21. Given the relevance of forestry to other chapters of Agenda 21, the Commission may also wish to draw attention to the need for developments in those other sectors to be made compatible with efforts to achieve SFM, particularly in areas affecting land use, agriculture, desertification, biological diversity, climate change and energy.

101. In the interests of conservation, the Commission may wish to call for further efforts to be undertaken for the conservation of ecosystems and biological diversity, and for countries to contribute to achieving a system of protected areas that includes representative examples of all types of forests, as well as ecosystems and biological diversity in areas of sufficient size to be ecologically viable in the long term. The Commission may wish to note that proposals have been made by some non-governmental groups for establishing a protocol under the Convention on Biological Diversity to replace the existing Non-legally Binding Authoritative Statement of Principles. In taking a position, the Commission may wish to note that, while they are very important for the conservation of biodiversity, forests also serve other productive and social functions beyond biological diversity; in this connection, it may wish to consider the outcome of the meeting of ministers responsible for forestry held by FAO to discuss options for the evolution of the Authoritative Statement of Principles.

102. The Commission may wish to emphasize the fundamental importance of forests as a source of products and services that are vital to sustainable development. Thus, the first priority for action is the development of capabilities and capacities for sound policy formulation, decision-making and forest management. The Commission may wish to reaffirm its support for productive industry based on forests for its economic role as a source of sustainable livelihoods and prosperity, provided its activities are compatible with SFM objectives. While acknowledging the importance of forests for all mankind, the Commission may also wish to particularly highlight the need for all parties to ensure that conservation and development activities give central attention to the interests of indigenous people and other communities that are most directly dependent on forests.

103. In recognition of the particular importance of external factors for deforestation and the sustainability of forests, the Commission may wish to call for a commitment by all member States to establishing sound population policies; addressing poverty; ensuring that land-use and agricultural policies provide the basis for a better allocation of land between agriculture and forests, and do not put forests at unnecessary risk; and reducing all other threats to forests, such as industrial pollution. In lower-income countries, the Commission may wish to call for necessary policy adjustments to be made so as to enhance the productivity of agriculture and thus reduce the demand for clearing new land. Specific actions that the Commission may wish to consider are described below.

Matters of pressing concern to all member countries and interest groups

104. The Commission may wish to:

(a) In the interests of making the most rapid progress in achieving SFM, exhort all parties to maintain the momentum of UNCED and to promote the most rapid progress towards achieving the goals agreed at UNCED by reaffirming its call for the preparation and implementation of national forestry action plans (NFAPs), as well as for the allocation of additional human, financial and technological resources to support the coordinated and harmonized implementation of NFAPs in order to combat forest degradation and deforestation and to achieve SFM;

(b) Call upon all Governments and concerned intergovernmental organizations at the global and regional levels to continue to provide forums for dialogue in which Governments, non-governmental organizations and the commercial private sector, as the main interest groups, will all feel sufficiently motivated to secure an early agreement on the pressing issues that are currently the subject of divergent positions, namely agreeing on common attributes and a working definition of SFM, sustaining the momentum gained in the lead-up to the current session of the Commission by preparing prioritized proposals for concrete action, and setting clear targets and a calendar for implementing the Authoritative Statement of Principles and forestry elements of Agenda 21; proposing modalities for increasing cooperation among the interest groups supported by the guidelines; and securing an early convergence of the proliferation of international initiatives, both governmental and non-governmental. (At the international level, forums for such consultation, consensus-building and mutual confidence-building, serviced by appropriate United Nations bodies, should have an ad hoc informal nature. They should make recommendations for formalization through existing United Nations intergovernmental bodies, such as the FAO Committee on Forestry.);

(c) Request an appropriate organization or body in the United Nations system, working in close collaboration with other concerned international organizations and all interest groups, to promote agreement on a harmonized system of criteria and indicators for assessing progress towards achieving SFM, taking account of the different capacities of member countries and their sovereign rights over their forest resources;

(d) Call upon member countries to strengthen both official and unofficial institutions that are charged with the responsibility for safeguarding forests

in order to improve their visibility and stature and thus their ability to influence forestry and relevant non-forestry policies and attract the political and practical support essential for pursuing SFM.

Other matters whose high profile and/or urgency requires the attention of the Commission on Sustainable Development

105. The Commission may wish to:

(a) Request an appropriate organization or body within the United Nations system, working in close collaboration with other concerned international organizations and all interest groups, to explore what common ground exists for making further progress, if warranted, in the evolution of the Authoritative Statement of Principles towards a legally binding instrument, or to identify other options and report to the Commission at its next session or through existing FAO committees. The work should reflect a recognition of the linkages between forest issues and issues involving, inter alia, biodiversity, agriculture and climate change, and should build upon the outcome of debate on this topic at the FAO meeting of ministers responsible for forestry (March 1995);

(b) With a view to enhancing available information on forests, appeal to all member countries, the donor community and appropriate international organizations to (a) accelerate ongoing work on the development of methodologies for the valuation of forest goods and services in order to provide sounder justification for public and political support for the sustainable management of forests; (b) support initiatives of member States and international organizations, such as FAO, to harmonize programmes for the continuous assessment of forest resources, including the development of quality indicators, and programmes on the use of data in public information and for policy and strategy formulation; and (c) give priority to analytical work on the forestry sector in a multisectoral context in order to facilitate policy formulation and decision-making;

(c) Under the aegis of a group of multilateral lending institutions active in forestry and in close collaboration with relevant specialized agencies, donor agencies, member Governments of main beneficiary countries and the private sector, study existing and new mechanisms for improving procedures and enhancing the coordination of international cooperation so as to help member States prepare and implement forestry investment projects, and enhance funding flows for SFM, with particular emphasis on private-sector and domestic resources, including sectoral revenues; propose ways to improve the distribution of external funding among beneficiary countries; develop provisional guidelines; and propose arrangements for improving the information available on all sources of funding for the forestry sector.

UNCED priorities of a cross-sectoral nature

106. The Commission may wish to:

(a) Establish a group of eminent persons selected through a consultative process and balanced between developed and developing countries, as well as

equitably representing all interest groups and the forest products trade, with a mandate to chart a path towards steady progress in international trade in forest products from all types of forests based on sustainably managed forests and the application of criteria and indicators to measure and monitor such management. The group should work under the aegis of appropriate international organizations, such as FAO, ITTO and the World Trade Organization (WTO), and should collaborate closely with other concerned international organizations and interest groups. The group should also benefit from the work of appropriate United Nations initiatives, such as the Ad Hoc Working Group on Trade, Environment and Development of the United Nations Conference on Trade and Development (UNCTAD) and the WTO Committee on Trade and Environment;

(b) Call for the international community to increase its support for capacity-building of Governments and other interest groups in the area of forestry, as well as its support for technology transfer and development, including efforts to integrate modern science with indigenous knowledge and practice.

Notes

1/ United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

2/ Ibid., annex III.

3/ See United Nations Environment Programme, Convention on Biological Diversity (Environmental Law and Institutions Programme Activity Centre), June 1992.

4/ Comprising 12 United Nations bodies, three non-governmental organizations and two regional development banks; the remainder fall into other categories.

5/ There are five principal reports on the 1990 Forest Resources Assessment: (a) "The forest resources of the temperate zones: the United Nations/ECE/FAO 1990 Forest Resources Assessment", vol. 1, "General forest resource information" (ECE/TIM/62) and vol. 2, "Benefits and functions of forests" (ECE/TIM/62, vol. II); (b) "Forest Resources Assessment 1990: tropical countries", FAO Forestry Paper, No. 112 (Rome, 1993); (c) "Forest Resources Assessment 1990: country briefs (tropical countries)" (FAO, 1994); (d) "Forest Resources Assessment 1990: non-tropical developing countries", FAO Miscellaneous Paper (FAO, under preparation); (e) "Forest Resources Assessment 1990: global synthesis" (FAO, under preparation).

6/ "Primary" forests are also often termed "old-growth" forests.

7/ The State of Food and Agriculture 1994, special chapter on forestry (Rome, FAO, 1994).

8/ FAO working documents, citing (a) The Tropical Forestry Action Plan (FAO, UNDP, the World Bank and the World Resources Institute, 1987 and (b) N. Myers, "Conversion rates in tropical moist forests", in Ecosystems of the World, vol. 14a, Tropical Rainforest Ecosystems: Structure and Function (Elsevier Scientific Publishing Company).

9/ "Forest Resources Assessment 1990: tropical countries", FAO Forestry Paper, No. 112 (Rome, 1993).

10/ See Greenpeace International submission to the third session of the Commission on Sustainable Development, annex 3, "Some statistics on forest and biodiversity decline" (Amsterdam).

11/ Our Common Future (World Commission on Environment and Development and Oxford University Press, 1987).

12/ "Forest Resources Assessment 1990: tropical countries", FAO Forestry Paper, No. 112 (Rome, 1993).

13/ Signatories to all or most of the resolutions are Albania, Belarus, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Russian Federation, the Slovak Republic, Slovenia, Ukraine and Yugoslavia.

14/ Four main certification schemes are reported to be currently operational covering an estimated 1.5 million cubic metres (m^3) of timber and timber products in 1993, which represents less than 1 per cent of world trade in industrial roundwood, sawn wood, plywood and veneer.

15/ Information on the commercial private sector has been particularly scarce.

16/ To ensure a level playing field in the market, other commodities that compete with forest products should also be priced on a similar basis.

17/ A key problem in reporting on financing related to financing for forests is the lack of consolidated information available from any one agency (even among concerned United Nations agencies) on both international official and private-sector funding, as well as on domestic investment.

18/ Committee on Forestry Development in the Tropics, tenth session, "The review of international cooperation in tropical forestry" (FO:FDT/91/3) (Rome, FAO, 1991).

19/ Percentage shares of the requirements contained in Agenda 21, chap. 11, compared to actual (World Bank) lending are: institutions 15 (23); forest protection/restoration 65 (64.8); utilization 16 (10.6); and assessments 4 (2.5).

20/ Asia-Pacific Forestry Commission, "Report of the in-session seminar on forestry investment in Asia and the Pacific" (FO:MISC/93/14) (Rome, FAO, August 1994).

21/ Committee on Forestry Development in the Tropics, tenth session, "The review of international cooperation in tropical forestry" (FO:FDT/91/3) (Rome, FAO, 1991).

22/ Calculated from "Tropical Forests Action Programme: stock-taking" document issued by the TFAP Coordinating Unit (Rome, FAO, November 1994).

23/ An informal association of the forestry advisers to the main bilateral donors and multilateral lenders for forestry; the Group was initially created to service TFAP.

24/ There are also important technical issues, such as how to accommodate, in international trade, forest products that are harvested during land-clearing with subsequent change to other land use: such products could not be certified as sustainably sourced, but if their use was disallowed harvest pressure would shift to remaining forests or the potential harvest would be wasted.

25/ Twenty-seventh FAO Conference (C93/24) (Rome, November 1993).